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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/086,657	02/28/2002	John A. Scott	112056-0035	2276
24267	7590	08/25/2004	EXAMINER	
CESARI AND MCKENNA, LLP			CONTINO, PAUL F	
88 BLACK FALCON AVENUE			ART UNIT	
BOSTON, MA 02210			PAPER NUMBER	

2114

DATE MAILED: 08/25/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/086,657

Applicant(s)

SCOTT, JOHN A.

Examiner

Paul Contino

Art Unit

2114

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 February 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 7-13 is/are rejected.
- 7) ☒ Claim(s) 6 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 February 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ 6/11/02, 7/13/03, 5/13/04
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference signs mentioned in the description:

There is no item 100 in Figure 1 as referenced by the specification on page 7.

There is no reference to item 128 in Figure 1. Examiner treats item 128 as 122.

There is no reference to item 400 in Figure 4.

There is no reference to item 700 in Figure 7.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

2. The specification is objected to as failing to comply with 37 CFR 1.74 (see MPEP 608.01(f)) which states:

When there are drawings, there shall be a brief description of the several views of the drawings and the detailed description of the invention shall refer to the different views by specifying the numbers of the figures and to the different parts by use of reference letters or numerals (preferably the latter)

The Brief Description of Drawings section of applicant's specification fails to include reference to Figure 7 of drawings. Appropriate correction is required.

The specification on page 7 line 27 references "DNS" to item 132 which is labeled as 130 in Figure 1. Examiner treats reference to DNS item 132 as DNS item 130. Appropriate correction is required.

3. The disclosure is objected to because of the following informalities:

Page 9 line 24 states a "serial link apology." Examiner objects to use of term "apology," as a proper definition in context of disclosure is indeterminate.

Page 13 lines 9 and 10 for duplicate use of "the client can."

Appropriate correction is required.

Allowable Subject Matter

4. Claim 6 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The limitation “appending a set text string to a name of the first file server” when interpreted in context with the limitations of claim 5, where the “appending a set text string” is carried out while “computing a failover name,” warrants the novelty of the invention.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claim 1 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites “the set of failover clients, the failover clients” in paragraph 5 line 2. There is insufficient antecedent basis for this limitation in the claim. Examiner treats “failover clients” as defined “set of clients” in the first paragraph of claim 1 line 3.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 8 and 12 rejected under 35 U.S.C. 102(b) as being anticipated by Bhanot et al. (U.S. Patent 5,796,934).

As in claim 8, Bhanot et al. disclose a cluster interconnect, the cluster interconnect providing a communications link to a partner file server in the file server cluster (column 5 lines 29-31);

a primary data access port for receiving file service operations from file server clients (column 5 line 66 through column 6 line 1);

a secondary data access port, the secondary data access port only being active when the file server detects that the partner file server has suffered an error condition, wherein the file server processes file service operations received via the secondary data access port to provide file service operations to clients of the partner file server (column 5 lines 14-16, 44-46, 66 through column 6 line 2).

Art Unit: 2114

As in claim 12, Bhanot et al. disclose a computer-readable medium, including program instructions (column 6 lines 6-37, 60 through column 7 line 8, where exemplary computer system is interpreted to include server as well as client), for:

detecting that a failed server has suffered an error indication (Fig. 4 #402; column 5 lines 29-31 and lines 35-36);

asserting ownership of a set of storage devices normally owned by the failed file server (Fig. 3; column 6 lines 35-37 where the database sessions refer to communicating with a storage device and 48-52 where it is inherent that the recovery server process the failed primary server's intended instructions on the failed primary server's storage device);

activating a secondary data access port for receiving connections over a network (column 5 lines 7-8 and line 66 through column 6 line 2);

processing file service operations received by one or more clients over the data access port (column 6 lines 48-52).

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 1-4, and 11 rejected under 35 U.S.C. 102(e) as being anticipated by Sundaresan et al. (U.S. PGPub 2003/0033412 A1).

As in claim 1, Sundaresan et al. disclose detecting, by the first file server, that the second file server has suffered an error condition (paragraph [0039] lines 3-7 and paragraph [0040] lines 6-10);

asserting ownership, by the first file server, of a set of storage devices normally owned by the second file server (paragraph [0034] lines 1-5 and paragraph [0040] lines 9-10);

activating, on the first file server, a secondary data access port for receiving connections over a network (paragraph [0023] lines 17-21 where “secondary data access port for receiving connections over a network” is interpreted as the connection between a server 210 and a client 220 and is “activated” by connection through the client as disclosed in paragraph [0036] lines 9-10);

processing, by the first file server, file service operations directed to the secondary data access port from the set of failover clients, the failover clients accessing the first file server by computing a network address associated with the first file server from a symbolic name generated from the second file server, whereby failover operation is achieved by the client (paragraph [0036]; “computing a network address” is taught as determining connection information by client in lines 3-8 and further described in paragraph [0026] lines 1-11).

As in claim 2, Sundaresan et al. disclose sending, by the second file server, an error message to the first file server (paragraph [0039] lines 3-7 where “error message” is interpreted as any message from failing server to recovery server of failing server’s inability to properly continue operation).

As in claim 3, Sundaresan et al. disclose detecting, by the first file server, a lack of a status signal generated by the second file server (paragraph [0040] lines 4-10 where “status signal” is interpreted as disclosed message sent periodically between servers).

As in claim 4, Sundaresan et al. disclose secondary data access port is a virtual interface discriminator (paragraph [0036] lines 3-4 and 8-11; background in paragraphs [0025] and [0027]).

As in claim 11, Sundaresan et al. disclose means for communicating with a partner file server in the file server cluster (Fig. 4 and paragraph [0023], implied in paragraph [0040] lines 4-6 in the periodic messaging between servers);

means for identifying that the partner file server has suffered an error condition (paragraph [0039] lines 3-7 where “error message” is interpreted as any message from failing server to recovery server of failing server’s inability to properly continue operation);

means asserting ownership of disks normally owned by the partner file server (paragraph [0034] lines 1-5 and paragraph [0040] lines 9-10 where it is inherent there be a means of accessing the failed server’s disks upon failover);

means for processing file service operations from clients of the partner file server (paragraph [0034] lines 1-5 and paragraph [0036] lines 9-11, where it is inherent there be a similar means for the recovery server to continue the functionality of the first server and its “processing” of “file service operations.”).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 5, 7, and 13 rejected under 35 U.S.C. 103(a) as being unpatentable over Sundaresan et al. in view of Gronke (U.S. PGPub 2002/0071386). Sundaresan et al. disclose resolving the failover name to a network address (paragraph [0036] lines 3-4 where determining connection information for “server” at the second server resolves the “failover name to a network address”; further in paragraph [0025] lines 6-9 and paragraph [0026] lines 14-15). In addition, Sundaresan et al. disclose connecting to a failover file server using the network address and predetermined alternate data access port (paragraph [0036] lines 9-11).

However, Sundaresan et al. do not specifically disclose computing a failover name. Gronke discloses computing a failover name in a virtual interface (Fig. 7; paragraph [0045] where “computing a failover name” is interpreted as the identifying of an alternate fabric by a port mapper in the event of a failure).

It would have been obvious to a person skilled in the art at the time the invention was made to include the “computing of a failover name” as disclosed by Gronke in the filer failover environment of Sundaresan et al. This would have been obvious because Gronke disclose

Art Unit: 2114

determining a failover name (paragraph [0045] lines 13-14), resolving a failover address (paragraph [0045] lines 14-15), and connect to the new port (paragraph [0045] lines 15-16), which parallels the same process described in Sundaresan et al. (paragraph [0036]). Gronke also provides a “virtual interface” environment (paragraph [0016] and [0018]) as does Sundaresan et al. in which failover (paragraph [0044] lines 2-8) occurs in a network (paragraph [0026] lines 10-11) consisting of “clients” and “servers” (paragraph [0028] lines 4-5), which a person skilled in the art would recognize as allowing for faster and simpler failover.

9. Claims 9 and 10 rejected under 35 U.S.C. 103(a) as being unpatentable over Bhanot et al. as applied to claim 8, in view of Sundaresan et al.

Bhanot et al. do not specifically disclose use of failover in a “virtual interface” environment of claims 9 and 10 (paragraph [0036] lines 3-4 and 9-11; background in paragraphs [0025] and [0027]) with a “network protocol being free of support for moving a transport address” of claim 8. Sundaresan et al. disclose use of failover in a “virtual interface” client and server environment.

It would have been obvious to a person skilled in the art at the time the invention was made to include a “virtual interface” as disclosed by Sundaresan et al. in the client/server environment of Bhanot et al. This would have been obvious because Bhanot et al. disclose a similar invention to Sundaresan et al. and never limit the scope of the network protocol to a “non-virtual” interface. Further, Bhanot et al. disclose the client automatically establishing a connection to a designated secondary server (column 5 lines 44-46), alluding to the “virtual

interface” addressing and connecting of servers in a similar fashion as disclosed by Sundaresan et al.

Conclusion


10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The Clowes et al. patent, Atarashi et al. patent, and Zhou et al. publication are cited for further references.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul Contino whose telephone number is (703) 605-4316 [after approximately October 15, 2004 at (571) 272-3657]. The examiner can normally be reached on Monday-Friday 7:30 am - 5:00 pm, first Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Beausoliel can be reached on (703) 305-9713 [after approximately October 15, 2004 at (571) 272-3645]. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306 [after approximately October 15, 2004 at (571) 273-3657].

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

PFC
August 19, 2004


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